COMMITTEE LANGUAGE FOR FISCAL YEAR 2003
TACTICAL UAVs

TACTICAL UAV
ACCOUNT: RDT&E, Navy

PRESBUD	HASC	SASC	CASC	HAC	SAC	CAC
206,359	205,059	251,659	244,159	249,659	263,659	262,459

HASC LANGUAGE (Rpt. 107- 436)

Page 164, RDT&E, Navy

0305204N 210	TACTICAL UNMANNED AERIAL VEHICLES	206,359	(1,300)	205,059
	DERF - Develop USMC Shadow (Adv)			(+7,000)
	DERF - ISR (BAMS UAV)Classified			(+28,300)
	Navy tactical unmanned aerial vehicle			(-43,600)
	Joint operational test bed			(+7,000)

Page 179, RDT&E, Navy

Joint operational test bed
The budget request contained $206.4 million in PE 35204N for tactical unmanned aerial vehicles, but included no funds for the joint operational test bed system (JOTBS). The committee is aware that as a result of the revised unified command plan, the Joint Forces Command will focus on its responsibilities of helping transform the military, including improving joint interoperability and innovation. The committee notes that the JOTBS is fundamental to these responsibilities and vital to future joint use of unmanned aerial vehicles (UAVs). The committee also notes that the JOTBS is vital, not only to complete tactical control system (TCS) development for Predator, but also use by multiple UAVs such as Shadow, Marine Shadow, and other UAVs. The committee directs the Commander in Chief (CINC), Joint Forces Command to competitively contract for the new Government Flight Activity support contract as follows:
(1) Preparation of the contract solicitation, analysis of responses to the solicitation, and contract award must be conducted in accordance with Department of Defense regulations by an established government contracting organization/office with previous extensive experience in writing GFA support contracts.
(2) The solicitation must be open to all commercial vendors certified in the flight activities covered by the solicitation.
Additionally, the committee directs the Secretary of the Navy and the CINC Joint Forces Command to robustly fund the JOTBS in future years to remove any dependency on congressional increases for its viability. The committee strongly recommends that the Deputy Chief of Naval Operations for Naval Warfare (N7/N78), which sponsors both unmanned aerial vehicles and tactical control system development be designated as the Navy program sponsor for the JOTBS. The committee recommends an increase of $7.0 million in PE 35204N for JOTBS.

Page 185, RDT&E, Navy

Navy tactical unmanned aerial vehicle
The budget request contained $206.4 million in PE 35204N for tactical unmanned aerial vehicles (TUAV), and included $43.6 million for vertical TUAV (VTUAV), and $9.1 million for the tactical
control system (TCS). The committee is aware that the Navy terminated the Fire Scout VTUAV program and has requested funds for developing the Air Force Global Hawk endurance UAV for broad area maritime surveillance. The committee notes that though the Navy, which is the lead service for the joint tactical control system (TCS) development, no longer has a TUAV program, its responsibilities for program management for TCS remain. The committee further

notes that both the Army and Marine Corps are fielding variants of the Shadow UAV, are committed to TCS for Shadow, and are critically dependent on successful Navy program management of TCS. The committee recommends a decrease of $43.6 million in PE 35204N for the Fire Scout VTUAV.

Page 207, RDT&E, Navy

Global Hawk high altitude endurance unmanned aerial vehicle
Air Force
The budget contained $309.0 million in PE 35205F for endurance unmanned aerial vehicles, and included $306.0 for Global Hawk high altitude endurance (HAE) unmanned aerial vehicle (UAV).
The Defense Emergency Response Fund (DERF) contained an additional $128.3 million for Global Hawk and associated sensor electronics development. The committee notes the recent operational success of Global Hawk and supports introduction of this new capability. However, the committee is aware that the joint engineering team is methodically rebaselining the Global Hawk program and recognizes that this process must be thorough and complete to form the basis for a strong, well-structured production phase. The committee recognizes that while the air vehicle definition may be more mature than sensor packages, determining the proper sensors is fundamental to the future success of Global Hawk. The committee recalls the problems associated with other programs making the transition from an advanced concept technology demonstration to formal acquisition, and believes that those experiences have shown that extra attention to detail is important as the transition to acquisition is made. Some Global Hawk documentation required by the DOD 5000 series acquisition regulations is either incomplete or in various stages of development, and must be completed. The committee believes that the proper goal for the Global Hawk acquisition program should be to expeditiously field a meaningful operational capability for the warfighter. However, determination of a proper operational capability for Global Hawk that fits within the overall intelligence, reconnaissance and surveillance architecture, is essential to successful production.
The committee believes that cost reduction efforts are essential to allow fielding Global Hawk in meaningful numbers and notes that while production rate affects average per unit cost, the proper
design, robust but not gold plated, has an even greater potential to limit cost and schedule growth. Industrial facilities can be efficiently sized for a particular rate, given stable production goals. The Secretary of the Air Force should ensure that industrial production facilities are sized at an appropriate and realistic capacity, based on a firm commitment to a sustained rate of production,
rather than an overly optimistic estimate that leads to unwarranted investment in production facilities. The committee also believes that the Air Force should make maximum appropriate use of off-the-shelf technology and open standards in order to minimize system costs and allow competition, rather than engaging in prolonged development that slightly improves performance while causing great expense and years of potential delay. The committee is also aware of the Navy's new UAV concept exploration effort examining Global Hawk and, should the Navy decide to use Global Hawk, believes that the sensors and platform should remain common with the Air Force variant unless modifications are justified as necessary to meet mission requirements. The committee notes that basing and infrastructure development are also cost drivers and must be developed with maximum commonality and minimum duplication, again based on a realistic estimate of procurement numbers. The committee notes that shared Air Force-Navy Global Hawk basing facilities might offer cost savings should the Navy decide, after its broad area maritime surveillance (BAMS) experimentation, to acquire Global Hawk. The committee directs the Secretary of the Air Force to re-baseline the Global Hawk by December 31, 2002. This new baseline should incorporate a clear roadmap of technology insertion leading to an objective configuration. The re-baselining shall be established on realistic per unit costs, with and without sensors; address the evolutionary growth structure or ''spiral'' cost, schedule objectives, and milestone decisions. The committee recommends the budget request for Global Hawk.

Navy

The budget request contained $206.4 million in PE 35204N and included $152.0 million for Global Hawk and $28.3 million in the DERF fiscal year 2003 for sensor development. The committee is very concerned that the Navy enters the Global Hawk program with clear maritime requirements and notes that there is currently no mission needs statement, no analysis of multiple concepts, and no specific exit criteria. The committee directs the Secretary of the Navy not to obligate more that 20 percent of the Navy's Global Hawk funding until these requirements have been met for the Broad Area Maritime Surveillance (BAMS) Phase I demonstration in accordance with DOD 5000 series.

The committee directs the Secretary of the Navy to submit the acquisition strategy for the BAMS Unmanned Aerial Vehicle (UAV) to the congressional defense and intelligence committees.

The committee recommends $180.3 million in PE 35204N for Global Hawk, including $28.3 million for sensor development in the DERF for fiscal year 2003.

SASC LANGUAGE (Rpt. 107-151)

Page 176, RDT&E, Navy

0305204N	210	TACTICAL UNMANNED AERIAL VEHICLES	206,359	45,300		251,659
		Integrate Global Hawk into tactical control system (TCS)		[10,000]		
		Develop USMC Shadow (Adv) (Transfer from DERF)		[7,000]		
		ISR (BAMS UAV) / classified (Transfer from DERF)		[28,300]		

Page 189, RDT&E, Navy

Unmanned Aerial Vehicle Tactical Control System

The budget request included $9.1 million for research and development of the Tactical Control System (TCS), which is being designed to receive, process and disseminate data from all current and future tactical and high-endurance Unmanned Aerial Vehicles (UAVs), such as Predator and Global Hawk. The TCS would also serve as a common command and control system for all UAVs.

The Navy is purchasing Global Hawk UAVs in fiscal year 2003 with the ultimate goal of integrating them into the TCS. The proposed fiscal year budget for TCS, however, does not fund such integration.

Therefore, instead of using TCS to support the Global Hawks, the Navy now plans on using the existing, dedicated Global Hawk ground stations which are designed to work exclusively with Global Hawks.

The committee believes that integration of Global Hawk into the TCS should occur as soon as possible to ensure TCS commonality within the set of Navy UAVs and recommends that $10.0 million be added to PE 35204N for this purpose. Furthermore, the committee urges the Air Force to work with the Navy to support the Navy's TCS activities.

CASC LANGUAGE (Rpt. 107-772)

Page 503, RDT&E, Navy

0305204N	210	TACTICAL UNMANNED AERIAL VEHICLES	206,359	205,059	251,659	37,800	244,159
		Develop USMC Shadow (Adv) (Transfer from DERF)		[7,000]	[7,000]	[7,000]	
		ISR (BAMS UAV) / classified (Transfer from DERF)		[28,300]	[28,300]	[28,300]	
		Navy tactical unmanned aerial vehicle		[-43,600]			
		VTOL UAV operational testing				[-9,000]	
		Joint operational test bed		[7,000]		[7,000]	
		Integrate Global Hawk into tactical control system (TCS)			[10,000]	[4,500]	

Contains no language.

HAC LANGUAGE, (Rpt. 107-532)

Page 260 and 261, RDT&E, Navy

Integrated Digital Camera Antescope			
210 TACTICAL UNMANNED AERIAL VEHICLES	206,359	249,659	+43,300
USMC Shadow - Transfer from DERF			7,000
ISR (BAMS/UAV) - Transfer from DERF			28,300
VTOL UAV - Operational Testing			-9,000
Tactical Control System (TCS) (Note: Only for modifications necessary for TCS to receive sensor data from a variety of UAVs, including the Global Hawk HAEUAV)			4,500
Tactical Control System (TCS) (Note: Only for the Joint Operational Test Bed (JOTBS) for enhancements to accommodate multiple UAVs.)			7,000
Minaturized High Definition Digital Camera			2,000
Multiple Link Antenna system (MLAS) ACTD			1,500
UAV Payload (Note: Only for Minature Detection Devices as part of Naval UAV Payload effort, to be used only for the continuation of an industry-based research program for light-weight, low power Nuclear, Chemical, and Biological sensors and isotope identification techniques.)			2,000

Page 268, RDT&E, Navy

JOINT MILITARY INTELLIGENCE PROGRAMS	6,709	6,709	---
TACTICAL UNMANNED AERIAL VEHICLES	206,359	249,659	+43,300
AIRBORNE RECONNAISSANCE SYSTEMS	5.469	14.469	+9.000

Page 263, RDT&E, Navy

BROAD AREA MARITIME SURVEILLANCE (BAMS) UNMANNED AERIAL VEHICLE (UAV)

The budget request included $152,000,000 for the Navy's Broad Area Maritime Surveillance (BAMS) Unmanned Aerial Vehicle (UAV) concept exploration and experimentation. As part of the Defense Emergency Response Fund, the Navy requested an additional $28,300,000 for the continued development of the concept of operations, the development of requirements and systems for the Signals Intelligence (SIGINT) and Electronics Intelligence (ELINT) missions, and the integration of necessary systems to provide for control of the UAV from aircraft carriers, large deck amphibious ships and Navy Command ships. The Committee has provided the funds as requested.

The Committee believes that the efforts funded with this total $180,300,000, support similar Navy requirements for manned reconnaissance as well as similar missions and requirements of the other Services, especially the U.S. Air Force. The Committee directs the Navy to consider the applicability of all of its BAMS development efforts to other Navy systems and missions, and to share development, test, and other data with the other Services as appropriate.

Despite its obvious support of the Navy's planned BAMS concept exploration and experimentation, the Committee is concerned about the lack of specificity and documentation provided thus far by the Navy. It appears the Navy continues to refine its plans for Phase I concept exploration, which is the basis for the fiscal year 2003 budget request, as well as the Phase II follow on development and testing program. Therefore, the Committee directs that the Navy submit, by February 1, 2003, a detailed report on the BAMS UAV program. At a minimum, the Committee directs that the report address the total program objective, the operational require-ments documentation, the spiral development and testing milestone plan, the applicability of Department of Defense acquisition regulations, the training and support requirements, and the basing strategies for the system.

The Committee also notes that the Navy has indicated that despite its plan to spend $24,000,000 on two air vehicles that would be delivered in 2005, the Air Force has not made a firm commitment to that delivery schedule. The Committee directs the Air Force to ensure that the air vehicles and other support equipment necessary for the Navy to proceed with the BAMS UAV program, is provided in accordance with the current schedule. The Committee also directs the Navy and the Air Force to provide an explanation for the requirement to include $11,400,000 in Air Force program management and aircraft tooling costs within the $139,400,000 that the Navy has budgeted for the acquisition of Global Hawk.

VERTICAL TAKE-OFF AND LANDING TACTICAL UNMANNED AERIAL VEHICLE—RESCISSION

In fiscal year 2002, Congress provided a total of $5,000,000 for a Maritime Patrol and Reconnaissance (MPR) Study in the Re-search, Development, Test and Evaluation, Navy appropriation for the VTUAV. The Committee has included a rescission of $2,000,000 from outstanding balances associated with this study.
The intent of the $5,000,000 in fiscal year 2002 was a study of the concept of operations for the employment of the Global Hawk UAV in conjunction with other assets for MPR missions.
Considerating the $180,300,000 fiscal year 2003 request for a Navy version of the Global Hawk UAV for the MPR mission, the Committee believes that the study has been overtaken by events and is no longer needed.

TACTICAL CONTROL SYSTEM (TCS) AND THE JOINT OPERATIONAL TEST BED (JOTBS)

The Committee has provided an additional $4,500,000 for the Tactical Control System (TCS) for modifications necessary for TCS to receive sensor data from a variety of UAVs, including the Global Hawk. The Committee fully supports the TCS program and believes the Navy must fully fund this requirement in the future.
The Committee has also provided an additional $7,000,000 for the Joint Operational Test Bed (JOTBS) for enhancements necessary for JOTBS to accommodate multiple UAVs. Considering the link between JOTBS and TCS, the Committee believes that the Deputy Chief of Naval Operations for Naval Warfare (N7/N78), which sponsors TCS, be designated the Navy program sponsor for JOTBS.

SAC LANGUAGE (Rpt. 107-213)

Page 188, RDT&E, Navy

209	JOINT MILITARY INTELLIGENCE PROGRAMS	6,709	6,709	6,709	.....	.....
210	TACTICAL UNMANNED AERIAL VEHICLES	206,359	249,659	263,659	+57,300	+14,000
211	AIRBORNE RECONNAISSANCE SYSTEMS	5,469	14,469	9,469	+4,000	−5,000

Page 192, RDT&E, Navy

	Strategic Interoperability Initiative	.....	.....	+4,000
210	Tactical Unmanned Aerial Vehicles	206,359	263,659	+57,300
	Develop USMC Shadow (Adv) (Transfer from DERF)	.....	.....	+7,000
	ISR (BAMS UAV)/classified (Transfer from DERF)	.....	.....	+28,300
	Global Hawk BAMS	.....	.....	+22,000
211	Airborne Reconnaissance Systems	5,469	9,469	+4,000

Contains no language.

CAC LANGUAGE (Rpt. 107-732)

Page 264, RDT&E, Navy

JOINT MILITARY INTELLIGENCE PROGRAMS	6,709	6,709	6,709	6,709
TACTICAL UNMANNED AERIAL VEHICLES	206,359	249,659	263,659	262,459

Page 277, RDT&E, Navy

Strategic Interoperability Initiative			+4,000	+2,800
210 TACTICAL UNMANNED AERIAL VEHICLES	**206,359**	**249,659**	**263,659**	**262,459**
USMC Pioneer - Transfer from DERF		+7,000	+7,000	+7,000
ISR (BAMS UAV) - Transfer from DERF		+28,300	+28,300	+28,300
VTOL UAV - Operational Testing		-9,000		-4,000
Tactical Control System (TCS) (Note: Only for modifications necessary for TCS to receive sensor data from a variety of UAVs, including the Global Hawk HAEUAV)		+4,500		+3,000
Tactical Control System (TCS) (Note: Only for the Joint Operational Test Bed (JOTBS) for enhancements to accommodate multiple UAVs.)		+7,000		+4,100
Miniaturized High Definition Digital Camera		+2,000		+1,000
Multiple Link Antenna System (MLAS) ACTD		+1,500		+1,000
UAV Payload (Note: Only for Miniature Detection Devices as part of the Naval UAV Payload effort to be used only for the continuation of an industry-based research program for for light-weight, low power Nuclear, Chemical and Biological sensors and isotope indentification techniques.)		+2,000		+1,700
Global Hawk BAMS			+22,000	+14,000

Pages 279 and 280, RDT&E, Navy

UNMANNED AERIAL VEHICLES

The conferees agree to provide a total of $262,459,000 for the Navy's tactical unmanned aerial vehicles program.

Broad Area Maritime Surveillance (BAMS): The conferees agree to provide an additional $42,300,000 for the Navy BAMS UAV. Of this amount, $28,300,000 is a transfer from the Defense Emergency Response Fund and shall only be used for the projects and activities as described in justification material submitted by the Navy and detailed in House Report 107–532; $7,000,000 is to determine the requirement for utilizing existing infrastructure resident in the Tactical Support Centers (TSCs) at P–3/EP–3 bases for hosting the BAMS mission planning and control and to initiate equipment upgrades as necessary; and $7,000,000 is for Global Hawk HAEUAV producibility initiatives such as tooling enhancements and improvements and special test equipment, an effort which the Navy shall coordinate with the Air Force.

The conferees believe the Navy should initiate a technology program to improve maritime ISR, including space-time processing algorithms from electro-optical data.

The conferees agree with the reporting requirements contained in House Report 107–532 with respect to the BAMS UAV.

VTOL UAV Operational Testing:

The conferees agree to reduce by $4,000,000 the Navy's request for operational testing of the Vertical Take Off and Landing UAV instead of $9,000,000 as proposed by the House. This reduction is taken without prejudice and may be applied as a general reduction to the program.

*USMC Pioneer upgrade*s:

The conferees agree to provide a total of $16,000,000 for upgrades to the Pioneer UAV used in support of the Marine Corps; $7,000,000 is provided in the Research, Development, Test and Evaluation, Navy appropriation and $9,000,000 is provided in the Weapons Procurement, Navy appropriation. The conferees direct that these funds, and any additional funds as required shall be used only to upgrade the Pioneer UAV in support of the Marine Corps.

VTOL UAV Rescission:
The conferees agree not to rescind $2,000,000 from the $5,000,000 appropriated to the Research, Development, Test and Evaluation, Navy account in fiscal year 2002 as proposed by the House. The conferees agree that these funds are excess to the requirement for which originally appropriated and therefore direct that these funds instead be used by the Navy to establish a Joint Program Office with the Air Force for the Predator
B and Global Hawk UAVs. To the extent that there may be similar vehicle and sensor requirements for the Navy and the Air Force, the Joint Program Office could facilitate the development of requirements, program management, acquisition support, testing and training.

Joint Operational Test Bed (JOTBS):
The conferees agree to provide an additional $4,100,000 for the Joint Operational Test Bed System (JOTBS) project. The conferees further agree to the language contained in House Report 107–532 with respect to designa-tion of the Deputy Chief of Naval Operations for Warfare Requirements and Programs (N7/N78), as the program sponsor. The conferees direct the Navy to evaluate the JOTBS prototype to determine if the system adequately addresses Service requirements and if so initiate the development of the necessary documentation of requirements.